9. Measurement	
Average Response Time for Manual Loop Make-Up Information	
Definition:	
The average time required to provide loop qualification for ~~ADSL~~XDSL capable loops measured in business days.	
Exclusions:	
Manual requests for Loop Makeup Information not initiated by the CLEC; however, manual requests initiated by the LSC as part of the ordering process when no mechanized loop qualification data is available will be included.~~None~~	
Business Rules:	
For a DataGate/EDI/CORBA or Verigate initiated request, the start date and time is when the request is received in the Loop Qual System. The end date and time for the DataGate/EDI/CORBA or Verigate request is when the loop makeup information has either has been e-mailed back to the CLEC or, if the CLEC does not want email, is available in the Loop Qual System. For manual requests for Loop Makeup Information initiated by the LSC as part of the ordering process, the start date and time is the receipt date and time of the good LSR. The end date and time is when the loop makeup information is available in the Loop Qual System. SWBT will provide raw data to CLECS in an agreed to format, on a monthly basis, without the need for a request from a CLEC, until such time as both parties agree it is no longer necessary.~~The time starts when a request is received by the CLEC and ends when the information on the loop qualification has been made available to the CLEC.~~	
Levels of Disaggregation:	
~~ADSL or other DSL as determined by the Public Utility Commission of Texas.~~None	
Calculation:	**Report Structure:**
∑(Date and Time the Loop Qualification is made available to CLEC – Date and Time the CLEC request is received)/Total number of loop qualifications	**CLEC, All CLECs and SWBT or its' affiliates (or SWBT acting on behalf of its' affiliates.**
Benchmark:	
~~Parity~~ 3 business days. Critical z-value applies.	

Maintenance

10a. Measurement	
Percent Missed Repair Commitments - POTS	
Definition:	
Percent of trouble reports not cleared by the commitment time.	
Exclusions:	
• **Excludes all disposition code "13" reports (excludable reports) with the exception of code 1316 unless the report is taken prior to the completion of the service order.**	
Business Rules:	
The ~~negotiated~~ commitment date and time is established when the repair report is received. The cleared time is the date and time that SWBT personnel clear the repair activity and complete the trouble report. If this is after the Commitment time, the report is flagged as a 'Missed Commitment'.	
Levels of Disaggregation:	
POTS • **Business class of service** • **Residence class of service** • **Dispatch** • **No Dispatch** **UNE Combo** • **Dispatch** • **No Dispatch**	
Calculation:	**Report Structure:**
(Count of trouble reports not cleared by the commitment time ÷ total trouble reports) * 100	**Reported for CLEC, all CLECs and SWBT**
Benchmark:	
POTS – Parity with SWBT Retail. **UNE Combo – Parity with SWBT Business and Residence combined.**	

10b. Measurement	
Percent Missed Repair Commitments - UNE	
Definition:	
Percent of trouble reports not cleared by the commitment time for SWBT reasons.	
Exclusions:	
• **Specials and Interconnection Trunks** • ~~**Excludes all UNE Combos other than 8db loops with test access.**~~ • Excludes all UNE Combinations • Excludes trouble tickets that are coded to Customer Premise Equipment, Interexchange Carrier/Competitive Access Provider, and Informational	
Business Rules:	
The commitment time is defined as 24 hours for both 8.0dB loops and DSL line sharing. If the cleared date and time minus the receive date and time > 24 hours, it counts as a trouble report that missed the repair commitment. UNEs are selected based on a specific service code off of the circuit ID. (If at such time, the contractual commitment for DSL line sharing changes, this measurement will be changed to reflect the appropriate interval.)	
Levels of Disaggregation:	
"POTS type" loops (2-Wire Analog 8dB Loop) with test access **DSL Line Sharing**	
Calculation:	**Report Structure:**
(Count of trouble reports not cleared by the commitment time for company reasons ÷ total trouble reports) * 100	**Reported for each CLEC, all CLECs and SWBT and SWB affiliate.**
Benchmark:	
• **Parity with SWBT POTS Business** ~~**and Residence combined**~~ • **Parity with ASI for DSL line sharing**	

11a. Measurement	
Percent Repeat Reports - POTS	
Definition:	
Percent of customer trouble reports received within 10 calendar days of a previous customer report.	
Exclusions:	
• **Excludes subsequent reports. A subsequent report is one that is received while an existing repair report is open** • **Excludes disposition code "13" reports (excludable reports) with the exception of code 1316 unless the report is taken prior to the completion of the service order.** • **Excludes reports caused by customer provided equipment (CPE) or wiring**	
Business Rules:	
Includes customer trouble reports received within 10 calendar days of an original customer report. When the second report is received in 10 days, the original report is marked as an Original of a Repeat, and the second report is marked as a Repeat. If a third report is received within 10 days, the second report is marked as an Original of a Repeat as well as being a Repeat, and the third report is marked as a Repeat. In this case there would be two repeat reports.	
Levels of Disaggregation:	
POTS • **Business class of service** • **Residence class of service** **UNE Combo - None**	
Calculation:	**Report Structure:**
Count of customer trouble reports, not caused by CPE or wiring and excluding subsequent reports, received within 10 calendar days of a previous customer report ÷ total customer trouble reports not caused by CPE or wiring and excluding subsequent reports) * 100	**Reported by CLEC, all CLECs and SWBT**
Benchmark:	
POTS – Parity with SWBT Retail. **UNE Combo – Parity with SWBT Business and Residence combined.**	

11b. Measurement	
Percent Repeat Reports - Design	
Definition:	
Percent of ~~network~~ customer trouble reports received within 30 calendar days of a previous customer report.	
Exclusions:	
• **UNE and Interconnection Trunk** • **Excludes trouble tickets that are coded to Customer Premise Equipment, Interexchange Carrier/Competitive Access Provider, and Informational**	
Business Rules:	
Includes customer trouble reports received within 30 calendar days of an original customer report. When the second report is received in 30 days, the original report is marked as an Original of a Repeat, and the second report is marked as a Repeat. If a third report is received within 30 days, The second report is marked as an Original of a Repeat as well as being a Repeat, and the third report is marked as a Repeat. In this case there would be two repeat reports.	
Levels of Disaggregation:	
See Measurement 4b.	
Calculation:	**Report Structure:**
Count of network customer trouble reports received within 30 calendar days of a previous customer report ÷ total network customer trouble reports) * 100	**Reported ~~for~~ by CLEC, all CLECs and SWBT**
Benchmark:	
Parity with SWBT Retail	

11c. Measurement
Percent Repeat Reports - UNE
Definition:
Percent of ~~network~~ customer trouble reports received within 30 calendar days of a previous customer report.
Exclusions:
• **Specials and Interconnection Trunks** ~~- Excludes Non-measured reports (CPE, Interexchange, and Information reports).~~ • **Excludes UNE Combos captured in the POTS or Specials measurements.** • Excludes trouble tickets that are coded to Customer Premise Equipment, Interexchange Carrier/Competitive Access Provider, and Informational • Excludes loops without test access – BRI • Excludes DSL loops > 12Kf with load coils, repeaters, and/or excessive bridged tap for which the CLEC has not authorized conditioning unless coded to the Central Office. • Excludes trouble reports caused by lack of digital test capabilities on 2-wire and IDSL capable loops where acceptance testing is available and not selected by the CLEC. • ~~Excludes all UNE Combos other than 8db loops with test access.~~
Business Rules:
Includes customer trouble reports received within 30 calendar days of an original customer report. When the second report is received in 30 days, the original report is marked as an Original of a Repeat, and the second report is marked as a Repeat. If a third report is received within 10 days, the second report is marked as an Original of a Repeat as well as being a Repeat, and the third report is marked as a Repeat. In this case there would be two repeat reports. If either the original or the second report within 30 days is a measured report, then the second report counts as a Repeat report.
Levels of Disaggregation:
• **UNEs contained in the UNE price schedule, and / or agreed to by the parties.** • DSL loops with line sharing • DSL loops with no line sharing • Broadband service product (Note : Additional disaggregations may be required as necessary in the future

Calculation:	Report Structure:
Count of ~~network~~ customer trouble reports received within 30 calendar days of a previous customer report ÷ total ~~network~~ customer trouble reports) * 100	**Reported for CLEC, all CLECs and SWBT and affiliates where appropriate**

Benchmark:

See following: ~~See Measurement 1c.~~	
Parity:	Retail Comparison
1. 8.0 dB Loop with Test Access and 8.0 dB Loop without Test Access (FW/NFW)	POTS (Bus FW/NFW)
2. 5.0 dB Loop with Test Access and 5.0 dB Loop without Test Access	Parity with SWBT VGPL
3. BRI Loop with Test Access	ISDN
4. ISDN BRI Port	ISDN
5. DS1 Loop with Test Access	DS1
6. DS1 Dedicated Transport	DS1
7. Subtending Channel (23B)	DDS
8. Subtending Channel (1D)	DDS
9. Analog Trunk Port	VGPL
10. Subtending Digital Direct Combination Trunks	VGPL
11. DS3 Dedicated Transport	DS3
12. Dark Fiber	DS3
13. DSL Loops – Line Sharing	DSL Loops with line sharing
14. DSL Loops with no Line Sharing – 12.0% (Critical z-value does not apply)	
Broadband service product (Note : Additional disaggregations may be required as necessary in the future ~~DSL Loops – No Line Sharing 6.0% (No Critical z-value applies)~~	

12a. Measurement	
~~Receipt To Clear Duration~~Mean Time to Restore - POTS	
Definition:	
Average duration of customer trouble reports from the receipt of the customer trouble report to the time the trouble report is cleared.	
Exclusions:	
• **Excludes subsequent reports. A subsequent report is one that is received while an existing repair report is open.** • **Excludes disposition code "13" reports (excludable reports) with the exception of code 1316 unless the report is taken prior to the completion of the service order.**	
Business Rules:	
The clock starts on the date and time SWBT receives a trouble report. The clock stops on the date and time that SWBT personnel clear the repair activity and complete the trouble report in WFA.	
Levels of Disaggregation:	
POTS • **Business class of service** • **Residence class of service** • **Dispatch** • **No Dispatch** • **Affecting Service** • **Out of Service** (Diagnostic) **UNE Combo** • **Dispatch** • **No Dispatch** • **Affecting Service** • **Out of Service** (Diagnostic)	
Calculation:	**Report Structure:**
Σ[(Date and time SWBT clears ticket with the CLEC) - (Date and time ticket received)] ÷ Total customer trouble reports	**Reported for POTS Resale trouble reports by CLEC, all CLECs and SWBT**
Benchmark:	
POTS – Parity with SWBT Retail. **UNE Combo – Parity with SWBT Business and Residence combined.** Out of Service for POTS and UNE Combo will be diagnostic.	

12b. Measurement	
Mean Time To Restore - Design	
Definition:	
Average duration in calendar days of ~~network~~ customer trouble reports from the receipt of the customer trouble report to the time that the trouble report is cleared.	
Exclusions:	
• **UNE and Interconnection Trunk** • **No Access time** • **Delayed Maintenance time** • **Excludes trouble tickets that are coded to Customer Premise Equipment, Interexchange Carrier/Competitive Access Provider, and Informational**	
Business Rules:	
The start time is when the customer report is received and the stop time is when the report is closed in WFA. Specials are selected based on a specific service code off of the circuit ID.	
Levels of Disaggregation:	
• **Resold Specials - DDS, DS1, DS3, Voice Grade Private Line (VGPL), ISDN and any other services available for resale** • **UNE Loop and Port - ISDN and other combinations** • **Dispatch** • **No Dispatch**	
Calculation:	**Report Structure:**
Σ[(Date and time trouble report is cleared with the customer) - (date and time trouble report is received)] ÷ total network customer trouble reports	**Reported for CLEC, all CLECs and SWBT**
Benchmark:	
Parity with SWBT Retail	

12c. Measurement

Mean Time To Restore - UNE

Definition:

Average duration of network customer trouble reports from the receipt of the customer trouble report to the time the trouble report is cleared excluding no access and delayed maintenance.

Exclusions:

- **Specials and Interconnection Trunks**
- ~~**Excludes Non-measured reports (CPE, Interexchange, and Information reports).**~~
- **Excludes UNE Combos captured in the POTS or Specials measurements.**
- Excludes Customer Premise Equipment, Interexchange Carrier/Competitive Access Provider, and Informational
- Excludes loops without test access – BRI
- Excludes DSL loops > 12Kf with load coils, repeaters, and/or excessive bridged tap for which the CLEC has not authorized conditioning unless coded to the Central Office.
- Excludes PTRs as defined in PM 115.1
- Excludes trouble reports caused by lack of digital test capabilities on 2-wire and IDSL capable loops where acceptance testing is available and not selected by the CLEC.
- ~~**Excludes all UNE Combos other than 8db loops with test access.**~~

Business Rules:

The start time is when the report is received. The stop time is the stop time is when the report is cleared in the appropriate system (WFA for all UNEs except DSL line sharing which is captured in LMOS). ~~**WFA.**~~

Levels of Disaggregation:

- DSL loops with line Sharing
- DSL loops with no line sharing
- Broadband service product (Note: Additional disaggregations may be required as necessary in the future.
- **UNEs contained in the UNE price schedule, and / or agreed to by the parties.**
- **Also disaggregated by Dispatch/No Dispatch.**

Calculation:	**Report Structure:**
Σ[(Date and time trouble report is cleared with the customer) - (date and time trouble report is received)] ÷ total network customer trouble reports	**Reported for CLEC, all CLECs and SWBT and SWBT Affiliate**

Benchmark:

• See following: ~~See Measurement 1c.~~	
Parity:	Retail Comparison
1. 8.0 dB Loop with Test Access and 8.0 dB Loop without Test Access (FW/NFW)	POTS (Bus FW/NFW)
2. 5.0 dB Loop with Test Access and 5.0 dB Loop without Test Access	Parity with SWBT VGPL
3. BRI Loop with Test Access	ISDN
4. ISDN BRI Port	ISDN
5. DS1 Loop with Test Access	DS1
6. DS1 Dedicated Transport	DS1
7. Subtending Channel (23B)	DDS
8. Subtending Channel (1D)	DDS
9. Analog Trunk Port	VGPL
10. Subtending Digital Direct Combination Trunks	VGPL
11. DS3 Dedicated Transport	DS3
12. Dark Fiber	DS3
13. DSL Loops – Line Sharing	Parity
DSL Loops – No Line Sharing	9.0 hours (No Critical z-value does not apply)
14. Broadband Service product (Note: Additional ~~diaggregations~~disaggregations may be required as necessary in the future)	

13a. Measurement	
Trouble Report Rate - POTS	
Definition:	
The number of electronic or manual customer trouble reports per 100 lines.	
Exclusions:	
• **Excludes reports caused by customer provided equipment (CPE) or wiring** • **Excludes all disposition "13" reports (excludable reports) with the exception of code 1316 unless the report is taken prior to the completion of the service order.**	
Business Rules:	
CLEC and SWBT repair reports are entered into and tracked via WFA. They are downloaded nightly into LMOS. Reports are counted in the month they post to LMOS.	
Levels of Disaggregation:	
POTS • **Business class of service** • **Residence class of service** **UNE Combo - None**	
Calculation:	**Report Structure:**
[Total number of customer trouble reports ÷ (total lines ÷100)]	**Reported for POTS Resale trouble reports by CLEC, all CLECs and SWBT**
Benchmark:	
POTS – Parity with SWBT Retail. **UNE Combo – Parity with SWBT Business and Residence combined.**	

13b. Measurement	
~~Failure Frequency – Design~~Trouble Report Rate	
Definition:	
The number of ~~network~~ customer trouble reports within a calendar month per 100 circuits.	
Exclusions:	
• UNE and Interconnection Trunks • ~~Excludes~~Excludes trouble reports coded to Customer Premise Equipment, Interexchange Carrier/Competitive Access Provider, and Informational	
Business Rules:	
CLEC and SWBT repair reports are entered into and tracked via WFA. Reports are counted in the month they post.	
Levels of Disaggregation:	
See Measurement 4b.	
Calculation:	**Report Structure:**
[Count of network trouble reports ÷ (Total Resold circuits ÷100)]	Reported ~~for~~ by CLEC, all CLECs and SWBT
Benchmark:	
Parity with SWBT Retail	

13c. Measurement	
Trouble Report Rate - UNE	
Definition:	
The number of ~~network~~ customer trouble reports within a calendar month per 100 UNEs.	
Exclusions:	
• **Specials and Interconnection Trunks** ~~Excludes Non-measured reports (CPE, Interexchange, and Information reports)~~ • **Excludes UNE Combos captured in the POTS or Specials measurements** • Excludes trouble tickets that are coded to Customer Premise Equipment, Interexchange Carrier/Competitive Access Provider, and Informational • Excludes loops without test access - BRI • Excludes DSL loops > 12Kf with load coils, repeaters, and/or excessive bridged tap for which the CLEC has not authorized conditioning unless coded to the Central Office. • Excludes PTRs • Excludes trouble reports caused by lack of digital test capabilities on 2-wire and IDSL capable loops where acceptance testing is available and not selected by the CLEC.	
Business Rules:	
Repair reports are entered into and tracked via WFA by trouble ticket. Reports are counted in the month they post.	
Levels of Disaggregation:	
• **UNEs contained in the UNE price schedule, and / or agreed to by the parties.** • DSL loops with line sharing • DSL loops with no line sharing • Broadband service product (Note : Additional disaggregations may be required as necessary in the future	
Calculation:	**Report Structure:**
[Count of network trouble reports ÷ (Total UNEs ÷ 100)]	**Reported for CLEC, all CLECs and SWBT and SWBT affiliates**
Benchmark:	

Parity:	Retail Comparison
~~1. 8.0 dB Loop with Test Access and 8.0 dB Loop without Test Access (FW)~~	~~POTS (Res/Bus FW)~~
~~1a. 8.0 dB Loop with Test Access and 8.0 dB Loop without Test Access (NFW)~~	~~POTS (Res/Bus NFW)~~
1. 8db loops	Parity with SWBT POTS Business
2. 5.0 dB Loop with Test Access and 5.0 dB Loop without Test Access	**Parity with SWBT ~~VGPL~~ POTS Business**
3. BRI Loop with Test Access	**ISDN/BRI**
4. ISDN BRI Port	**ISDN/BRI**
5. DS1 Loop with Test Access	**DS1**
6. DS1 Dedicated Transport	**DS1**
7. Subtending Channel (23B)	**DDS**
8. Subtending Channel (1D)	**DDS**
9. Analog Trunk Port	**VGPL**
10. Subtending Digital Direct Combination Trunks	**VGPL**
11. DS3 Dedicated Transport	**DS3**
12. Dark Fiber	**DS3**
13. DSL Loops – Line Sharing	**Parity ~~with ASI – Benchmark~~**
14. DSL Loops – Non-Line Sharing	**53% (No Critical z-value applies**
Broadband service product (Note : Additional disaggregations may be applied as required as necessary in the future.	
~~See Measurement 4c.~~	

Interconnection

14. Measurement	
Average Trunk Restoration Interval for Service Affecting Trunk Groups	
Definition:	
The average time to restore service affecting trunk groups (measured tickets only).	
Exclusions:	
Customer Caused Outages ~~None~~	
Business Rules:	
Service affecting is defined as 20% of a trunk group out-of-service that causes trunk group blockage. The clock starts on receipt of a trouble ticket from the CLEC that identifies a service affecting condition. The clock stops after completion of work by SWBT.	
Levels of Disaggregation:	
• **Tandem trunk groups.** • **Non-Tandem trunk groups.** • **By Market Region.** • **911** • **OS/DA** • **SS7** • **Interconnection Trunks**	
Calculation:	**Report Structure:**
Total trunk group outage time / total trunk group trouble reports	**Reported ~~for~~ by 1CLEC, all CLECs ~~and SWBT.~~**
Benchmark:	
Tandem trunk groups – 1 hour / Non-Tandem – 2 hours.	

15. Measurement
Percent Trunk Blockage
Definition:
Percent of calls blocked on outgoing traffic for alternat final (AF) and dirct final (DF) trunk groups from SWBT end office to CLEC end office and from SWBT tandem to CLEC end office
Exclusions:
~~No penalties or liquidated damages apply:~~ • Excludes Weekend and Holidays • ~~If~~ CLECs have trunks busied-out for maintenance at their end, or if they have other network problems which are under their control. • SWBT is ready for turn-up on Due Date and CLEC is not ready or not available for turn-up of trunks. , e.g. not ready to accept traffic from SWBT on the due date or CLEC has no facilities or equipment at CLEC end. • ~~If~~ CLEC does not take action upon receipt of Trunk Group Service Request (TGSR) or ASR within 3 business days (day 0 is the business day the TGSRwhen a Call Blocking situation is identified by SWBT or in the timeframe specified in the ICA. • If CLEC does not take action upon receipt of TGSR within 10 business days (day 0 as described above) when a pre-service of 75% or greater occupancy situation is identified by SWBT for a time frame specified in the ICA. • If CLEC fails to provide a forecast within the last six months unless a different timeframe is specified in an interconnection agreement. • For trunks extending from the SWBT tandem to the CLEC end office designated as direct end office trunks, if CLEC's actual trunk usage for a market region, as shown by SWBT from traffic usage studies, is more than 25% above CLEC's most recent forecast for the market region, which must have been provided within the last six-months unless a different timeframe is specified in an interconnection agreement. • For trunks extending from the SWBT end office to the CLEC end office, if CLEC's actual trunk usage for a wirecenter or end office, as shown by SWBT from traffic usage studies, is more than 25% above CLEC's most recent forecast for the wirecenter or end office, which must have been provided within the last six-months unless a different timeframe is specified in an interconnection agreement ~~If CLEC's actual trunk usage, as shown by SWBT from traffic usage studies, is more than 25% above CLEC's most recent forecast, which must have been provided within the last six-months unless a different timeframe is specified in an interconnection agreement.~~ The exclusions do not apply if SWBT fails to timely provide CLEC with traffic utilization data reasonably required for CLEC to develop its forecast or if

SWBT refuses to accept CLEC trunk orders (ASRs or TGSRs) that are within the CLEC's reasonable forecast regardless of what the current usage data is.

~~None.~~

Business Rules:

Twenty days of data consisting of blocked calls and total calls are collected and aggregated each month.~~Blocked calls and total calls are gathered during the official study week each month. This week is chosen from a pre-determined schedule.~~

~~No penalties or liquidated damages apply:~~

- ~~If CLECs have trunks busied out for maintenance at their end, or if they have other network problems which are under their control.~~
- ~~SWBT is ready for turn-up on Due Date and CLEC is not ready or not available for turn-up of trunks.~~
- ~~If CLEC does not take action upon receipt of Trunk Group Service Request (TGSR) or ASR within 3 days when a Call Blocking situation is identified by SWBT or in the timeframe specified in the ICA.~~
- ~~If CLEC fails to provide a forecast.~~
- ~~If CLECs actual trunk usage, as shown by SWBT from traffic usage studies, is more than 25% above CLEC's most recent forecast, which must have been provided within the last six months unless a different timeframe is specified in an interconnection agreement~~

~~The exclusions do not apply if SWBT fails to timely provide CLEC with traffic utilization data reasonably required for CLEC to develop its forecast or if SWBT refuses to accept CLEC trunk orders (ASRs or TGSRs) that are within the CLEC's reasonable forecast regardless of what the current usage data is.~~

Levels of Disaggregation:

- **The SWBT end office to CLEC end office and SWBT tandem to CLEC end office trunk blockage will be reported separately**
- **By Market Region**

Calculation:	**Report Structure:**
(Count of blocked calls – excluded blocked calls÷ total calls offered – excluded blocked calls) * 100	**Reported for CLEC, all CLECs and SWBT**

Benchmark:

Blocked ccalls on Dedicated Trunk Groups not to exceed blocking standard of B.01 {B.01 standard is 1%}.

16 Measurement (Complete Revision of PM 16 below)
CHC/FDT LNP with Loop Provisioning Interval.
Definition:
The % of CHC/FDT LNP with Loop Lines completed by SWBT within the established provisioning intervals of 60 minutes (1 – 10 lines) and 120 minutes (11 – 24 lines).
Exclusions:
• CHC/FDT LNP with Loop with greater than 24 loops (including multiple LSRs totaling 25 or more lines to the same customer premise on the due date). • CLEC caused delays (e.g., no dial tone from CLEC: CLEC translations) that do not allow SWBT the opportunity to complete CHC/FDT LNP with Loop within the designated interval. • IDLC (pair gain systems) identified on or before the due date. (Thirty calendar days after the filing of the IDLC Report as required in the Business Rule, the IDLC exclusion shall be considered deleted).
Business Rules:
The start time is at the direction of the CLEC and based on a negotiated and scheduled time for coordinated hot cut orders (CHC) and on the frame due time for frame due time (FDT). For CHC orders, the clock starts when the CLEC calls the SWBT LOC to start the conversion, and ends when the SWBT technician completes the cross connect to the CLEC facilities and has called the CLEC to notify that the cut-over has been completed. For FDT orders, the clock starts at the frame due time and ends when the SWBT technician completes the cross connect to the CLEC facilities. This measurement only includes Coordinated Hot Cuts and Frame Due Time with 1-24 loops. A conversion with 25 or more lines (including multiple orders totaling 25 or more lines to the same customer premise on the same due date) is considered a project and is negotiated with the CLEC at the time of conversion. On or before June 30, 2001, SWBT and the CLECs shall file with the Commission a report regarding the collaborative efforts to define, test, and implement a process to handle conversions when IDLC situations occur (the IDLC Report).
Levels of Disaggregation:

CHC
LNP with loop
- ≤1- 10 lines
- 101-24 lines

FDT (Diagnostic)
LNP with loop
- ≤1--10 lines
- 101-24 lines

Calculation:	Report Structure:
Total CHC/FDT LNP with Loop Lines within the designated interval ÷ total CHC/FDT LNP with Loop lines.	Reported by CLEC and all CLECs.

Benchmark:

95% for CHC. FDT is diagnostic. ~~This measurement will be diagnostic for the next six months as addressed in the joint SWBT and AT&T recommendation.~~

~~**16. Measurement**~~

~~**Percentage of Premature Disconnects (Coordinated Cutovers)**~~

~~**Definition:**~~

~~**Percentage of coordinated cutovers where SWBT prematurely disconnects the customer prior to the scheduled conversion.**~~

~~**Exclusions:**~~

- ~~None~~

~~**Business Rules:**~~

~~**A premature disconnect occurs any time SWBT disconnects the CLEC customer prior to the CLEC being on line.**~~

~~**Levels of Disaggregation:**~~

~~None~~

~~Calculation:~~	~~Report Structure:~~
~~(Count of prematurelydisconnected customers ÷ total coordinated conversion customers) * 100~~	~~Reported by CLEC and all CLECs disaggregated by INP and INP with UNE loop.~~

~~**Benchmark:**~~

~~**2% or less premature disconnects starting 10 minutes before scheduled time.**~~

B. Collocation

17. Measurement
Percent Missed Collocation Due Dates
Definition:
The percent of SWBT caused missed due dates for Collocation projects.
Exclusions:
None
Business Rules:
The clock starts when SWBT receives, in compliance with the approved tariff, payment and return of proposed layout for space as specified in the application form from the CLEC and the clock stops when the CLEC receives notice in writing or other method agreed to by the parties that the collocation arrangement is complete and ready for CLEC occupancy. The CLEC will then have 5 business days to accept or not accept the collocation space. If the CLEC does not accept the collocation space because the space is not complete and ready for occupancy as specified, and notifies SWBT of such within 5 business days, the collocation will be considered not complete and the time frame required for the CLEC to reject the collocation space (up to 5 business days) and any additional time required for SWBT to complete the space per the specifications will be counted as part of the interval. Any time exceeding the 5 business days will not be counted as part of the interval. Due Date Extensions will be extended when mutually agreed to by SWBT and the CLEC, or when a CLEC fails to complete work items for which they are responsible in the allotted time frame. The extended due date will be calculated by adding to the original due date the number of calendar days that the CLEC was late in performing said work items. Work items include but are not limited to: • **CLEC return to SWBT corrected and complete floor plan drawings** • **CLEC placement of required component(s)** • **If the business rules and tariff are inconsistent, the terms of the tariff will apply.**
Levels of Disaggregation:
Physical • Caged • Shared Caged • Caged Common • Cageless • Adjacent On-site • Adjacent Off-site • Augments to Physical Collocation • Virtual • Augments to Virtual. ~~Physical, virtual, cageless and additions~~

Calculation:	Report Structure:
(count of number of SWBT caused missed due dates for ~~physical~~ collocation facilities ÷ total number of ~~physical~~ collocation projects) * 100	**Reported for individual CLEC and all CLECs and SWB affiliate.**
Benchmark:	
95% within the due date. Damages and Assessments will be calculated based on the number of days late. Critical z-value does not apply.	

Billing

18. Measurement	
Mechanized Electronic Billing Timeliness EDI and BDT (Wholesale Bill)	
Definition:	
Mechanized Electronic Billing Timeliness measures the length of time from the billing date to the time it is sent or transmitted (made available) to the CLECs.	
Exclusions:	
Excludes Weekends and Holidays **Excludes test transmissions**	
Business Rules:	
The transmission date is used to gather the data for the reporting period. The measurement counts the number of workdays between the bill day and transmission date for each bill.	
Levels of Disaggregation:	
• **EDI** • **BDT** • **To the extent SWBT sends bills to CLECs using other application to application processes other than EDI or BDT, SWBT will include those bills in this measure, separately disaggregated or not, as appropriate, with notice to CLECs of the change.** ~~None~~	
Calculation:	**Report Structure:**
(Count of mechanized electronic bills transmitted on time ÷ total number of bills released) * 100	**Reported for CLEC and all CLECs and ASI where applicable**
Benchmark:	
95% within 6th workday. Critical z-value does not apply for EDI. Critical z-value applies for BDT.	

19. Measurement	
OSS Interface Availability	
Definition:	
Percent of time OSS interface is available compared to scheduled availability.	
Exclusions:	
None	
Business Rules:	
The total "number of hours functionality to be available" is the cumulative number of hours (by date and time on a 24 hour clock) over which SWBT plans to offer and support CLEC access to SWBT's operational support systems (OSS) functionality during the reporting period. "Hours Functionality is Available" is the actual number of hours, during scheduled available time, that the SWBT interface is capable of accepting or receiving CLEC transactions or data files for processing through the interface and supporting operational support systems (OSS). The actual time available is divided by the scheduled time available and then multiplied by 100 to produce the "percent system availability" measure. SWBT will not schedule normal maintenance during business hours (8 am. to 5:30 PM. Monday through Friday). When interfaces experience partial unavailability, an availability factor is applied to the calculation of downtime. This factor is stated as a percentage and represents the impact to the CLEC. Determination of the availability factor is governed by SWBT's Availability Team on a case by case basis. SWBT's availability team shall provide to CLECs the information supporting the use of any availability factor multiplier used in reporting this measurement. SWBT shall calculate the availability time rounded to the nearest minute.	
Levels of Disaggregation:	
• EASE reported for ~~Geographic Regions~~Consumer and Business • EDI reported by protocol (SSL#3, FTP, NDM, VAN) • EDI/CORBA for Pre-order • DataGate • Verigate • LEX • RAF – By CLEC • TOOLBAR • Order Status • Trouble Administration • Provisioning Order Status • Solid GUI (Diagnostic) • ~~None~~	
Calculation:	**Report Structure:**

((Hours functionality is available during the scheduled available hours) ÷ Scheduled system available hours)) * 100	**Reported on an aggregate CLEC basis by interface e.g. EASE, DATAGATE, VERIGATE, LEX, EDI and TOOLBAR. The RAF will be reported on an individual CLECs basis**
Benchmark:	
99.5%. The critical z allowance does not apply on this measurement. No damages are applicable for Solid GUI. This will be reviewed in 6 months. ~~99%~~	

20. Measurement	
Common Transport Trunk Blockage	
Definition:	
Percentage of local common transport trunk groups exceeding 2% blockage.	
Exclusions:	
No data is collected on weekends or holidays.	
Business Rules:	
Common transport trunk groups that reflect blocking in excess of 2% and 1% (if a separate common transport trunk group is established to carry CLEC traffic only) using a time consistent busy hour from the four most recent weeks of data. ~~**Blocked calls and total calls are gathered during the official study week each month.**~~ ~~**This week is chosen from a pre-determined schedule.**~~ **The busy hour of the study week is used for comparison.**	
Levels of Disaggregation:	
• **Common trunk groups where CLECs share ILEC trunks, and Common trunk groups for CLECs not shared by ILEC.** • **By Market Region.**	
Calculation:	**Report Structure:**
(Number of common transport trunk groups exceeding 2% blocking ÷ total common transport trunk groups) * 100.	**Reported on local common transport trunk groups.**
Benchmark:	
3% of trunk groups not to exceed 2% blocking ~~**PUC Subst. R. 23.61(e)(5)(A) or parity, whichever allows less blocking in a given month.**~~ **SWBT shall compare common trunk groups exceeding 1% blockage, reported for switch based CLECs, be compared to SWBT's dedicated trunk groups designed for B.01 standard for parity compliance.** ~~**(if a separate common transport trunk group is established to carry CLEC traffic only).3% Blockage**~~	

Attachment A-3

CALCULATION OF PARITY AND BENCHMARK PERFORMANCE AND VOLUNTARY PAYMENTS

I. Z-Tests

- Modified Z-tests, as outlined below, will be used to determine parity when comparing an SBC/Ameritech incumbent LEC's and the CLEC's results for the difference between two means or two percentages, or the difference in two proportions.

- The modified Z-tests are applicable if the number of data points is greater than 30 for averages or means. For measurements with less than 30 data points SWBT may use the permutations test or Alternative-1 described under "Qualifications to use Z-Test heading below.

- Parity exists when the measured results in a single month (whether in the form of means, percents, or proportions) for the same measurement, at equivalent disaggregation, for both SWBT and the CLEC are used to calculate a Z-test statistic and the resulting value is no greater than the critical Z-value as discussed below.

- For parity measurement results that are expressed as averages or means:

  $Z = (DIFF) / \delta_{DIFF}$

  Where;
  $DIFF = M_{ILEC} - M_{CLEC}$
  M_{ILEC} = ILEC Average
  M_{CLEC} = CLEC Average
  $\delta_{DIFF} = SQRT [\delta^2_{ILEC} (1/ n_{CLEC} + 1/ n_{ILEC})]$
  δ^2_{ILEC} = Calculated variance for ILEC.
  n_{ILEC} = number of observations or samples used in ILEC measurement
  n_{CLEC} = number of observations or samples used in CLEC measurement

- For benchmark measurement results that are expressed as averages or means:

  $z = (DIFF) /$

  Where;
  $DIFF = Benchmark - M_{CLEC}$
  M_{CLEC} = CLEC Average

For parity measurement results that are expressed as percentages or proportions:

Step 1:

$$\rho = \frac{(n_{ILEC}P_{ILEC} + n_{CLEC}P_{CLEC})}{n_{ILEC} + n_{CLEC}}$$

Step 2:

$$\sigma_{PILEC\text{-}PCLEC} = \text{sqrt}[[\rho(1-\rho)]/n_{ILEC} + [\rho(1-\rho)]/n_{CLEC}]$$

Step 3:

$$Z = (P_{ILEC} - P_{CLEC})/\sigma_{PILEC\text{-}PCLEC}$$

Where: n = Number of Observations
P = Percentage or Proportion

- For benchmark measurement results that are expressed as percentages or proportions:

$$Z = (\text{benchmark} - P_{CLEC})/$$

Where: n = Number of Observations
P_{clec} = Percentage or Proportion for CLEC

- For measurement results that are expressed as rates or a ratio:

$$z = (DIFF) / \delta_{DIFF}$$

Where;
$DIFF = R_{ILEC} - R_{CLEC}$
$R_{ILEC} = num_{ILEC}/denom_{ILEC}$
$R_{CLEC} = num_{CLEC}/denom_{CLEC}$
$\delta_{DIFF} = SQRT\ [R_{ILEC}\ (1/denom_{CLEC} + 1/\ denom_{ILEC})]$

II. Qualifications To Use Z-Test:

- The proposed Z-tests are applicable to reported measurements that contain 30 or more data points.

- For measurements where the performance delivered to CLEC is compared to SWBT performance and for which the number of data points are 29 or less, The following Alternative may be used:

Alternative 1:

1. For measurements that are expressed as averages, performance delivered to a CLEC for each observation shall not exceed the ILEC averages plus the applicable critical Z-value. If the CLEC's performance is outside the ILEC average plus the critical Z-value and it is the second consecutive month, SWBT can utilize the Z-test as applicable for sample sizes 30 or greater or the permutation test to provide evidence of parity. If SWBT uses the Z-test for samples under 30, the CLEC can independently perform the permutation test to validate SWBT's results.

2. For measurements that are expressed as percentages, the percentage for CLEC shall not exceed ILEC percentage plus the applicable critical Z-value. If the CLEC's performance is outside the ILEC percentage plus the critical Z-value and it is the second consecutive month, SWBT can utilize the Z-test as applicable for sample sizes 30 or greater or the permutation test to provide evidence of parity. If SWBT uses the Z-test for samples under 30, the CLEC can independently perform the permutation test to validate SWBT's results.

Alternative 2:

Permutation analysis will be applied to calculate the z-statistic using the following logic:

1. Choose a sufficiently large number T.
2. Pool and mix the CLEC and ILEC data sets
3. Randomly subdivide the pooled data sets into two pools, one the same size as the original CLEC data set (n_{CLEC}) and one reflecting the remaining data points, (which is equal to the size of the original ILEC data set or n_{ILEC}).
4. Compute and store the Z-test score (Z_S) for this sample.
5. Repeat steps 3 and 4 for the remaining T-1 sample pairs to be analyzed. (If the number of possibilities is less than 1 million, include a programmatic check to prevent drawing the same pair of samples more than once).
6. Order the Z_S results computed and stored in step 4 from lowest to highest.
7. Compute the Z-test score for the original two data sets and find its rank in the ordering determined in step 6.
8. Repeat the steps 2-7 ten times and combine the results to determine P = (Summation of ranks in each of the 10 runs divided by 10T)
9. Using a cumulative standard normal distribution table, find the value Z_A such that the probability (or cumulative area under the standard normal curve) is equal to P calculated in step 8.
10. Compare Z_A with the desired critical value as determined from the critical Z table. If $Z_A >$ the designated critical Z-value in the table, then the performance is non-compliant.

III. Critical Z-Test Value

The following table will be used for determining the Critical Z-value for each measurement. The table can be extended to include CLECs with fewer performance measurements.

Critical Z - Statistic Table

Number of Performance Measurements	Critical Z-value
10-19	1.79
20-29	1.73
30-39	1.68
40-49	1.81
50-59	1.75
60-69	1.7
70 –79	1.68
80 – 89	1.74
90 – 99	1.71
100 – 109	1.68
110 –119	1.7
120 – 139	1.72
140 – 159	1.68
160 – 179	1.69
180 – 199	1.7
200 – 249	1.7
250 – 299	1.7
300 – 399	1.7
400 – 499	1.7
500 – 599	1.72
600 – 699	1.72
700 – 799	1.73
800 – 899	1.75
900 – 999	1.77
1000 and above	Calculated for Type-1 Error Probability of 5%

IV. Methods Of Calculating Per Occurrence Voluntary Payments

Measurements For Which The Reporting Dimensions Are Averages Or Means.

Step 1: Calculate the average or the mean for the measurement for the CLEC that would yield the Critical Z-value for the third consecutive month. Use the same denominator as the one used in calculating the Z-statistic for the measurement. (For benchmark measurements, substitute the benchmark value for the value calculated in the preceding sentences).

Step 2: Calculate the percentage difference between the actual average and the calculated average for the third consecutive month.

Step 3: Multiply the total number of data points by the percentage calculated in the previous step. Calculate the average for three months and multiply the result by $1500, $900, and $600 for Measurements that are designated as High, Medium, and Low respectively; to determine the applicable assessment payable to the U.S. Treasury for that measure.

Measurements For Which The Reporting Dimensions Are Percentages.

Step 1: Calculate the percentage for the measurement for the CLEC that would yield the Critical Z-value for the third consecutive month. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measurements, substitute the benchmark value for the value calculated in the preceding sentences).

Step 2: Calculate the difference between the actual percentage for the CLEC and the calculated percentage for each of the three non-compliant months.

Step 3: Multiply the total number of data points by the percentage calculated in the previous step. Calculate the average for three months and multiply the result by $1500, $900, and $600 for measurements that are designated High, Medium, and Low respectively: to determine the applicable assessment payable to the U.S. Treasury.

Measurements For Which The Reporting Dimensions Are Ratios Or Proportions.

Step 1: Calculate the ratio for the measurement for the CLEC that would yield the Critical Z-value for the third consecutive month. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measurements, substitute the benchmark value for the value calculated in the preceding sentences).

Step 2: Calculate the percentage difference between the actual ratio for the CLEC and the calculated ratio for each month of the non-compliant three-month period.

Step 3: Multiply the total number of service orders by the percentage calculated in the previous step for each month. Calculate the average for three months and multiply the result by $1500, $900, and $600 for measurements that are designated as High, Medium, and Low respectively; to determine the applicable assessment for that measure.

Measurements for Which Payment Is Per Occurrence With A Cap

Voluntary payments are calculated on a per occurrence basis in accordance with the methodologies described above and are payable up to the caps identified in Attachment A-4.

V. Methods Of Calculating Per Measurement Voluntary Payments

Per measurement voluntary payments are payable as detailed in the Voluntary Payments Table below if the actual Z-value exceeds the critical Z-value.

ATTACHMENT A-4

VOLUNTARY PAYMENTS TABLE FOR MEASUREMENTS

Per Occurrence

Measurement Group	
High	$1500
Medium	$900
Low	$600

Per Measurement/Per Occurrence Caps

Measurement Group	
High	$225,000
Medium	$90,000
Low	$60,000

ATTACHMENT A-5a

SBC/AMERITECH MEASUREMENT LIST
(EXCEPT CALIFORNIA AND NEVADA)

MEASUREMENT LIST (EXCEPT CALIFORNIA AND NEVADA)							
	FPP	Benchmark /Parity	Measurement Name				Pay
				Y1	Y2	Y3	
OSS	1	B	% FOC received in 'X' hours	M	M	M	occur/cap
	2	B	Average Response Time for OSS preorder interfaces	M	M	M	occur/cap
	3	P	Order Process Percent Flow Through	H	H	H	occur/cap
Provisioning	4a	P	% SBC caused missed due dates - POTS	H	H	H	occur
	4b	P	% SWBT caused missed due dates - Design	H	H	H	occur
	4c	P	% SWBT caused missed due dates	H	H	H	occur
	4d	B	% Mechanized Completions Returned Within one Day Of Work Completion	L	L	L	occur
	5a	P	Percent Trouble Report Within 10 Days (I-10) of Installation – POTS	H	H	H	occur
	5b	P	Percent Installation Reports (Trouble Reports) Within 30 Days (I-30) of Installation - Design	H	H	H	occur
	5c	P	Percent Installation Reports (Trouble Reports) Within 30 Days (I-30) of Installation - UNE	H	H	H	occur
	6a	P	Mean Installation Interval - POTS	H	H	H	occur
	6b	P	Average Installation Interval - POTS	H	H	H	occur
	6c	B	% Installation completed in 'X' days - UNE	M	H	H	occur
	7a	P	Average Delay Days For SWBT Caused Missed Due Dates – POTS	L	L	L	occur
	7b	P	Average Delay Days For SWBT Caused Missed Due Dates – Design	L	L	L	occur
	7c	P	Average Delay Days For SWBT Caused Missed Due Dates – UNE	L	L	L	occur
	8	P	Average installation interval - DSL	H	H	H	occur
	9	P	Average response time for loop qualification information	M	M	M	occur
Maintenance	10a	P	Percent Missed Repair Commitments - POTS	H	H	H	occur
	10b	P	Percent Missed Repair Commitments - UNE	H	H	H	occur
	11a	P	Percent Repeat Reports - POTS	H	H	H	occur
	11b	P	Percent Repeat Reports - Design	H	H	H	occur
	11c	P	Percent Repeat Reports - UNE	H	H	H	occur
	12a	P	Receipt To Clear Duration - POTS	H	H	H	occur
	12b	P	Mean Time To Restore - Design	H	H	H	occur
	12c	P	Mean Time To Restore - UNE	H	H	H	occur
	13a	P	Trouble Report Rate - POTS	H	H	H	occur
	13b	P	Failure Frequency – Design	L	L	L	occur
	13c	P	Trouble Report Rate - UNE	H	H	H	occur
Interconnection	14	B	Average Trunk Restoration Interval for Service Affecting Trunk Groups	M	M	H	occur
	15	B	Percent Trunk Blockage	M	H	H	occur/cap
Local Number Portability	16	B	% Pre-mature Disconnects (Coordinated Cutovers)	M	M	H	occur
Collocation	17	B	% missed collocation due date	M	M	H	occur
Billing	18	B	Billing Timeliness	M	M	H	occur/cap
OSS	19	B	OSS Interface Availability	M	M	H	meas

Interconnection	20	B	Common Transport Trunk Blockage	M	M	H	meas

~~ATTACHMENT A-5b~~

~~SBC/AMERITECH MEASUREMENT LIST~~
~~(CALIFORNIA AND~~
ATTACHMENT A-6

YEAR 1

CAPS ($M)

State	Annual	Monthly
Arkansas	$ 4.16	$ 0.35
California	$ 79.01	$ 6.58
Connecticut	$ 9.56	$ 0.80
Illinois	$ 30.41	$ 2.53
Indiana	$ 9.71	$ 0.81
Kansas	$ 5.89	$ 0.49
Michigan	$ 23.55	$ 1.96
Missouri	$ 10.87	$ 0.91
Nevada	$ 1.54	$ 0.13
Ohio	$ 17.81	$ 1.48
Oklahoma	$ 7.05	$ 0.59
Texas	$ 40.99	$ 3.41
Wisconsin	$ 9.45	$ 0.79
	$250.00	$ 20.83

ATTACHMENT A-6 (cont'd)

YEAR 2

CAPS ($M)

State	Annual	Monthly
Arkansas	$ 6.24	$ 0.52
California	$ 118.51	$ 9.88
Connecticut	$ 14.34	$ 1.20
Illinois	$ 45.62	$ 3.80
Indiana	$ 14.57	$ 1.21
Kansas	$ 8.83	$ 0.74
Michigan	$ 35.32	$ 2.94
Missouri	$ 16.31	$ 1.36
Nevada	$ 2.31	$ 0.19
Ohio	$ 26.72	$ 2.23
Oklahoma	$ 10.57	$ 0.88
Texas	$ 61.48	$ 5.12
Wisconsin	$ 14.18	$ 1.18
	$ 375.00	$ 31.25

ATTACHMENT A-6 (cont'd)

YEAR 3

CAPS ($M)

State	Annual	Monthly
Arkansas	$ 8.32	$ 0.69
California	$ 158.02	$ 13.17
Connecticut	$ 19.12	$ 1.59
Illinois	$ 60.82	$ 5.07
Indiana	$ 19.42	$ 1.62
Kansas	$ 11.78	$ 0.98
Michigan	$ 47.10	$ 3.93
Missouri	$ 21.75	$ 1.81
Nevada	$ 3.08	$ 0.26
Ohio	$ 35.62	$ 2.97
Oklahoma	$ 14.10	$ 1.18
Texas	$ 81.97	$ 6.83
Wisconsin	$ 18.90	$ 1.57
	$ 500.00	$ 41.67